Aviation Investigation Final Report

Location:	SAUGUS, California	**Accident Number:**	LAX97FA202
Date & Time:	June 7, 1997, 18:30 Local	**Registration:**	N756PU
Aircraft:	Cessna 206	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot told air traffic control (ATC) that he was over a hole in the clouds and planned to descend through it en route to his destination. ATC advised the pilot that the area was overcast and issued the current destination weather. ATC advised that radar contact had been lost and the pilot acknowledged. ATC twice requested that the pilot ident but received no beacon returns. After ATC advised the pilot that radar contact was lost and issued the tower frequency, no further communications were received. The weather was scattered clouds at 8,000 and 15,000 feet with 40 miles visibility north of a mountain ridge. South of the ridge were scattered clouds at 2,500 feet and a broken ceiling at 3,300 feet with 7 miles visibility. Estimated cloud tops were about 8,000 feet. The highest terrain between the pilot and his destination was about 4,000 feet. The aircraft crashed on an ascending northern slope at the 3,700-foot elevation. The pilot had received a weather forecast that included obscuration in the vicinity of mountains, turbulence, and precipitation throughout the evening with VFR flight not recommended.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's failure to maintain an adequate terrain clearance altitude while attempting VFR flight into instrument meteorological conditions.

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation: MANEUVERING

Findings
1. LIGHT CONDITION - DAYLIGHT
2. (F) WEATHER CONDITION - CLOUDS
3. (C) VFR FLIGHT INTO IMC - ATTEMPTED - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: MANEUVERING

Findings
4. TERRAIN CONDITION - MOUNTAINOUS/HILLY
5. OBJECT - TREE(S)
6. (C) ALTITUDE/CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND

Factual Information

HISTORY OF FLIGHT

On June 7, 1997, about 1830 hours Pacific daylight time, a Cessna U206G, N756PU, en route to Burbank, California, collided with mountainous terrain and burned near Saugus, California. The aircraft was destroyed and the pilot, the sole occupant, received fatal injuries. The aircraft was being operated as a personal flight by the private owner when the accident occurred. The flight originated in Mammoth Lakes, California, about 1630. Instrument flight conditions prevailed in the vicinity of the accident site and no flight plan was filed.

At 1806, Joshua approach control provided VFR advisories to the pilot who had contacted them as a VFR pop-up. The pilot was assigned a discrete transponder code and identified on radar 1 mile from north Lone Pine airport and given the current altimeter setting. At 1815, the pilot checked in with Joshua approach and started a gradual descent. At 1816, Joshua approach asked the pilot if he was reversing course. The pilot replied that he had done a 360-degree turn to get into position over an opening in the clouds and that he planned to descend through it en route to Burbank.

At 1820, Southern California (SOCAL) TRACON advised the pilot that the area was overcast and issued the current Burbank weather. At 1825, TRACON cancelled a previous altitude restriction for conflicting traffic. The pilot acknowledged and advised that he was turning to descend through the hole in the cloud layer. At 1827, SOCAL advised the pilot that radar contact had been lost which the pilot acknowledged. At 1828, SOCAL requested that the pilot squawk ident but received no reply. At 1829, SOCAL called the pilot and he responded. He was asked to squawk ident but, again, no reply was received. SOCAL advised the pilot that radar contact had been lost and issued the Burbank tower frequency. No further communications were received from the pilot.

The burned wreckage was found at 1047 on June 8, 1997, by Los Angeles County fire fighters next to 3N17 Road, approximately 1 mile west of Los Angeles Fire Camp Nine.

PERSONNEL INFORMATION

The pilot obtained his private pilot certificate on March 19, 1996. He had reported a total of 230 flight hours at the time he last renewed his medical certificate. He reported that he had logged 50 hours in a Cessna 206 when he obtained insurance coverage. The pilot's logbook was not located.

AIRCRAFT INFORMATION

The aircraft was fueled with 26.5 gallons of aviation fuel at the Mammoth Lakes, California, airport, the day before the accident.

A Federal Aviation Administration (FAA) principal maintenance inspector reviewed the aircraft, engine, and propeller logbooks and found no discrepancies. He was unable to determine the status of the airworthiness directive (AD) notes. The aircraft recording tachometer was destroyed in the postcrash fire and the time since the last inspection and the total aircraft time were not determined.

METEOROLOGICAL INFORMATION

At 1850, Palmdale, California, reported scattered clouds at 8,000 and 15,000 feet msl with a visibility of 40 statute miles. At 1847, Van Nuys, California, reported scattered clouds at 2,500 feet and a broken ceiling at 3,300 feet with 7 statute miles visibility. Estimated cloud tops were about 8,000 feet. The highest terrain in the vicinity of the accident was 4,003 feet.

At 1534, the pilot had received a preflight weather briefing from Riverside AFSS for a VFR flight from Mammoth to Burbank via the Owens Valley. The forecast included an AIRMET for mountain obscuration in clouds and mist in southern California until 5 o'clock that evening. Another AIRMET predicted a weak, onshore, low level flow of moist, unstable air over the mountains and deserts up to 3,500 feet thick.

The interior mountain and desert forecast was for clouds at 9,000 to 11,000 feet with broken tops at 25,000 feet. Occasionally, broken clouds could be expected down to 7,000 with scattered thunderstorms, light rain showers, and cumulonimbus tops reaching 42,000 feet until 8 o'clock that evening.

Burbank was reporting a broken layer at 2,200 feet with an overcast at 3,000 feet. The visibility was 6 miles in haze with the temperature at 21 degrees and dew point at 16 degrees Celsius. Edwards was reporting cumulonimbus clouds 62 miles northeast moving southeast with altocumulus and standing lenticular clouds to the north and east, indicating moderate to greater turbulence.

The forecaster stated that VFR flight was not recommended and asked the pilot if he was capable of IFR flight. The pilot said was not capable and indicated that he might be better off if he waited until that night. The forecaster then suggested that he call before departure and get an updated forecast, as well as the actual weather conditions. He also told the pilot that the weather would be better by the next morning. The pilot responded that he could always land at Lancaster or Lone Pine.

WRECKAGE AND IMPACT INFORMATION

The accident site was located about 6 statute miles north-northwest of Whiteman airport, and 32 nautical miles southwest of Palmdale airport at 34 degrees 21.6 minutes north latitude and

118 degrees 25.3 minutes west longitude. The site was located at the 3,700-foot level, on the 40-degree northern slope of Mountain Peak in the Angeles National Forest. The aircraft fuselage was oriented on a magnetic bearing of 095 degrees.

A 3-foot, outboard section of the right wing was located about 50 feet back along the flight path. A tree displaying breaks and impact scarring was next to the separated wing tip. All flight control surfaces were located at the crash site; however, control continuity could not be established. According to the manufacturer, the flap actuator corresponded to a flap extension of 5 degrees and the elevator trim actuating rod corresponded to a 5-degree tab up position. The fuel selector valve was not located.

The 3-bladed propeller hub remained attached to the propeller flange. The No. 1 blade did not exhibit obvious distortion. The No. 2 blade was separated from the blade grip but was located at the accident site. That blade exhibited aft bending near the blade tip. The No. 3 blade also exhibited aft bending near the tip.

The engine showed overall evidence of exposure to the postcrash fire. The No. 1 rocker cover was separated and damaged. The engine case remained intact, however, and engine oil was present. The oil sump was crushed upward and exhibited evidence of exposure to molten conditions.

The left exhaust manifold was crushed in upward and inward directions. The right exhaust manifold also showed some evidence of crushing. The induction system balance tube was crushed and the intake tubes were damaged and melted. The No. 1 intake elbow was melted.

All valves, valve springs, retainers, rocker arms, shafts, and pushrods were intact. The hand rotation of the crankshaft produced thumb compression in all six cylinders and established drive train continuity. The cylinders were smooth and free of visible scoring. All four crankshaft counterweights were intact. The camshaft and lifters were smooth with no visible evidence of pitting or flat spots. The connecting rods were intact with no visible distortion.

Both magnetos exhibited evidence of exposure to the postcrash fire. Both impulse couplings were intact; however, both capacitors had burned away and neither magneto would produce a spark when rotated by hand.

The spark plugs were removed and visually examined. According to the Champion Spark Plug Check-A-Plug chart, six exhibited coloration and wear patterns consistent with normal operation. The remaining six plugs exhibited excessive gapping and electrode wear.

The fuel pump was removed and visually examined. The pump was seized and exhibited evidence of exposure to the postcrash fire. The drive gear was intact; however, the drive coupling was sheared.

The vacuum pump was removed and visually inspected. The pump showed evidence of

exposure to the postcrash fire. The drive coupling was melted and the pump was seized.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was conducted on June 10, 1997, by the Los Angles County Coroner's Office, with specimens retained for toxicological examination. The toxicological results were negative for alcohol and all screened drugs with the exceptions of those substances identified in the FAA Forensic Toxicology Fatal Accident Report.

FIRE

The aircraft was partially consumed by a postcrash fire. The primary accelerant was an estimated 54 gallons of aviation fuel. The fire had burned itself out before the crash site was located.

ADDITIONAL INFORMATION

The aircraft was retrieved by Aircraft Recovery Services and stored in their facility located at Compton, California. On September 22, 1997, the wreckage was released to a representative of the registered owner.

Pilot Information

Certificate:	Private	**Age:**	41,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 3 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	May 12, 1997
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	230 hours (Total, all aircraft), 50 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N756PU
Model/Series:	206 206	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	U20604255
Landing Gear Type:	Tricycle	**Seats:**	6
Date/Type of Last Inspection:	April 23, 1997 Annual	**Certified Max Gross Wt.:**	3600 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Continental
ELT:	Installed, not activated	**Engine Model/Series:**	IO-520-F9
Registered Owner:	ALBERT B. FREITAS	**Rated Power:**	285 Horsepower
Operator:		**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	BUR ,775 ft msl	**Distance from Accident Site:**	11 Nautical Miles
Observation Time:	17:47 Local	**Direction from Accident Site:**	148°
Lowest Cloud Condition:	Unknown	**Visibility**	7 miles
Lowest Ceiling:	Overcast / 2900 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	6 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	170°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	20°C / 16°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	MAMMOTH LAKES , CA (MMH)	**Type of Flight Plan Filed:**	None
Destination:	BURBANK , CA (BUR)	**Type of Clearance:**	None
Departure Time:	16:30 Local	**Type of Airspace:**	Class G

Airport Information

Airport:		**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	
Runway Length/Width:		**VFR Approach/Landing:**	

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:		**Aircraft Fire:**	On-ground
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Fatal	**Latitude, Longitude:**	34.429546,-118.510375(est)

Administrative Information

Investigator In Charge (IIC):	Crispin, Robert
Additional Participating Persons:	DONALD S WARNER; VAN NUYS , CA WILLIAM B WELCH; WICHITA , KS MICHAEL J GRIMES; LANCASTER , CA
Original Publish Date:	February 15, 2000
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=29619